The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KAZUHIKO MARUYAMA

Appeal No. 2004-2255
Application No. 09/355,732

ON BRIEF

Before THOMAS, BARRETT, and BLANKENSHIP, Administrative Patent Judges.

BLANKENSHIP, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 13-15.

We affirm-in-part, and enter a new ground of rejection in accordance with 37 CFR § 41.50(b).

BACKGROUND

The invention relates to a method of radio channel assignment for radio communications between base stations and radio terminals, such as portable phones.

Claim 13 is reproduced below.

> 13. A radio channel assignment method for assigning radio channels for carrying out radio communication between a base station and a plurality of radio terminals in a radio zone of said base station, comprising the step of said base station determining a number of radio channels to be assigned to a first radio terminal according to the rate of increase of stored data to be transmitted per unit time.

The examiner relies on the following references:

Kamm et al. (Kamm)	5,457,680	Oct. 10, 1995
Dunn et al. (Dunn)	5,625,877	Apr. 29, 1997 (filed Mar. 15, 1995)
Bruckert et al. (Bruckert)	5,781,583	Jul. 14, 1998 (filed Jan. 19, 1996)
Nakagoshi et al. (Nakagoshi)	5,799,252	Aug. 25, 1998 (filed Mar. 1, 1996)

Claim 13 stands rejected under 35 U.S.C. § 102 as being anticipated by Kamm.

Claim 14 stands rejected under 35 U.S.C. § 102 as being anticipated by Dunn.

Claim 15 stands rejected under 35 U.S.C. § 103 as being unpatentable over Bruckert and Nakagoshi.

Claims 1-12 have been canceled.

Claims 16-35 have been allowed.

We refer to the Final Rejection (Paper No. 7) and the Examiner's Answer (Paper No. 18) for a statement of the examiner's position and to the Brief (Paper No. 13) and the Reply Brief (Paper No. 19) for appellant's position with respect to the claims which stand rejected.

OPINION

Rejections over the prior art

We agree with appellant that Kamm fails to anticipate (§ 102) claim 13 and that Dunn fails to anticipate claim 14. Each claim requires that a number of radio channels are to be assigned according to the rate of increase of stored data to be transmitted per unit time.

Kamm discloses determining if the average packet size is greater than or equal to the number of slots which have been allocated and, if it is, additional slots are allocated if available. Col. 9, l. 62 - col. 10. l. 3. Dunn discloses a method for locating and aggregating available air-link channels so as to increase the overall bandwidth for wireless transmissions. The size of the communication awaiting transmission is determined, and a decision is made as to whether a single or aggregated channels are indicated. Col. 12, l. 57 - col. 13, l. 22; Fig. 2a, box 124 et seq. We agree with the examiner to the extent that, in each case, the amount of data to be transmitted must vary over time. (Answer at 6-7.) However, we find no disclosure in the references of channels being assigned according to the rate of increase of stored data to be

transmitted per unit time. Further, in our view, the disclosed methods referenced by the examiner do not meet the literal terms regarding the "rate of increase" recited by claims 13 and 14.

We thus cannot sustain the prior art rejection of either of claim 13 or 14.

Turning to the rejection applied against claim 15, we find that the examiner has set forth a reasonable prima facie case for obviousness under § 103. Bruckert describes a hand-off operation for a high data rate communication signal (Fig. 6; col. 9, l. 51 et seq.) whereby base station B must generally assign the same number of traffic channels to track communication signal 20 from mobile station 12 as base station A has assigned to communication signal 20. Col. 10, ll. 18-22. Bruckert does not expressly describe information passed between base stations at the hand-off. Nakagoshi at column 6 describes methods and information, including information exchange among radio base stations, in radio communication hand-overs in order to determine the optimum radio base station for continuing communication.

We agree with appellant to the extent that neither Bruckert nor Nakagoshi discloses in express terms that information exchange between base stations includes "the number" of radio channels that have been assigned. However, the combination of teachings would have suggested, at the least, that Bruckert's system should have information exchange between base stations that includes the number of channels relevant to communications with the first base station to verify that a suitable second base station (i.e., with the requisite number of free channels) has been found. That is,

the exchange would ensure that a candidate second base station has a sufficient number of channels available at the time of hand-off, so that the communication signal will "almost certainly be continued at its existing data rate" after hand-off. Bruckert col. 10, ll. 22-27. We note, further, that claim 15 does not specify how the "transmitting" from the first base station to the second base station may be performed. The claim does not distinguish over information transfer from a first to a second base station via a controller or intermediary such as mobile telephone switching office (MTSO) 18 depicted in Figure 6 of Bruckert.

Since the examiner has set forth a prima facie case for unpatentability that appellant has not shown to be in error, we sustain the rejection of claim 15 under § 103.

New ground of rejection

We enter the following new ground of rejection against the claims in accordance with 37 CFR § 41.50(b): Claims 13 and 14 are rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Written description antecedent for original claims 13 and 14 appears to reside at page 19 of the specification. The specification teaches that in the previous embodiments channel assignment is varied depending on the amount of communication data. "However, varying channel assignment with the rate of change of

communication data per unit time also allows effective use of a limited number of channels, speeds up data communication and reduces inefficient use of channels." (Spec. at 19, "EMBODIMENT 3.") Original claims 13 and 14 are somewhat narrower in the "rate of change" aspect, reciting that the number of channels to be assigned are determined "according to the rate of increase of stored data per unit time."

Instant claims 13 and 14 recite that the number of radio channels to be assigned is "according to the rate of increase" of stored data to be transmitted "per unit time."

The disclosure does not teach how this "rate of increase" is to be measured, nor the "unit time" that would be indicated for the measurement. Moreover, there is no guidance to the artisan as to how the number of radio channels to be assigned may be determined by measuring a "rate of increase" of stored data to be transmitted "per unit time."

After careful consideration of the entirety of the record, we conclude the artisan could not, at least absent undue experimentation, make and/or use the radio channel assignment method of claim 13 or the radio channel assignment method of claim 14. We thus reject the claims under 35 U.S.C. § 112, first paragraph.

CONCLUSION

The rejection of claim 15 under 35 U.S.C. § 103 is affirmed. The rejection of claim 13 and of claim 14 under 35 U.S.C. § 102 is reversed.

The examiner's decision in rejecting claims 13-15 is thus affirmed-in-part.

A new rejection of claims 13 and 14 under 35 U.S.C. § 112, first paragraph is set forth herein.

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

> (1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
>
> (2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(a)(1)(iv).

AFFIRMED-IN-PART -- 37 CFR § 41.50(b)

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